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| 10/017,850 | 11/30/2001 | Daniel J. Aldrich | 1708 | 9608 |

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| EXAMINER | |
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| TRUONG, LECHI | |
| ART UNIT | PAPER NUMBER |
| 2194 | |

DATE MAILED: 10/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/017,850 | ALDRICH ET AL. | |
| | Examiner | Art Unit | |
| | LeChi Truong | 2194 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *22 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-8,12-14 and 16-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *19-24* is/are allowed.

6)☐ Claim(s) *1-8 and 12-14, 18* is/are rejected.

7)☒ Claim(s) *16 and 17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

**1.** Claims 1-8, 12-14, 16-24 are presented for the examination. Claims 9-11, 15 are canceled.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

**2.** Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards et al (US. 6,353,819 B1) in view of McCormack et al (US. 5,181,171).

**As to claim 1**, Edwards teaches the invention substantially as claimed including: a first architecture layer (the RAM Codegen Executor Component layer 204, col 5, ln 19/ Fig. 2), transparent layer (the record file manager component layer 206, col 5, ln 5-7/ Fig. 2), a second layer (the IO Random controller component layer 208, col 5, ln 20-25/ Fig. 2), the layer enabling the first layer and the second layer to communicate directly without having to communicate via the layer (col 2, ln 55-60/col 3, ln 13-17/col 5, ln 64-67/ col 9, ln 13-18)/ the record file manage component layer 206 is located between the layer 204 and 208( Fig.2), the layer 206 is transparent layer since the communication between layer 204 and 208 can be performed by

bypassing or eliminating the layer 206 resulting in increases performance ( col 3, ln 15-17/ col 5, ln 64-68/ col 6, ln 43-47/ col 7, ln 1-5 and ln 20-25), architecture (component, col 2, ln 52-55).

Edward does not explicitly teach the plurality of transparent architecture layers. However, Mccormack teaches the plurality of transparent architecture layer (The layer of nodes 44... is referred to as a middle, or hidden, layer, col 7, ln 3-10/ links with skip hidden layer in the network, col 25, ln 46-48/ reduction of the number links in the network 50 which is enabled by providing links 48 which skip the hidden layer of nodes, col 8, ln 64-68/ Network 40 includes three layers of nodes 42, 44 and 46, arranged in layers. The layer of nodes 42, each receiving an input to network 40, is referred to as the input layer; conversely, the layer of nodes 46, presenting outputs from the network 40, is referred as to the output layer. The layer of nodes 44, each receives inputs from input nodes 42, and presents an output to output nodes 46, is commonly referred to as a middle or hidden, layer. While a single hidden layer is illustrated in Fig.3, it should be noted that conventional networks may include multiple hidden layers between the layer of input nodes 42 and the layer of output nodes 46, col 7, ln 4-15).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Edwards and Mccormack because Mccormack's component would improve the efficiency of Edwards's systems by allowing more rapid convergence during training of the network to optimize the performance of network.

**3.** Claims **2-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards et al (US. 6,353,819 B1) in view of Beer (US. Patent 5,793,368), and further in view of Hayner et al (System and Method for Capturing Browser Session and User Actions).

**As to claim 2,** Edwards teaches a first layer object (the RAM Codegen Executor Component layer 204, col 5, ln 19/ Fig. 2), a transparent layer object (the record file manager component layer 206, col 5, ln 5-19/ Fig. 2), a second layer (the IO Random controller component layer 208, col 5, ln 20-25/ Fig. 2), the layer object configured to be hidden for communication between the first layer object and the second layer object/ the communication between each other by bypassing the layer (col 2, ln 55-60/col 3, ln 13-17/col 5, ln 9-19 and ln 54-67), a user interface attachable to the first layer object and configured to receive data, to transmit the data to the first layer object , to receive data from first layer object and to render the other object( input/out put units 16-1, col 3, ln 48-51/ a user enter queries derived from a database query language, such as SQL, into the database in order to obtain or extract request data, col 1, ln 35-38/ Optimizer component 202 processes the SQL query , col 5, ln 42-45 and the data obtained for the query is to be returned to a user, col 5, ln 51-53).

Edwards does not teach a selected user interface type dynamically selectable and dynamically interchangeable from a plurality of user interface types. However, Beer teaches a selected user interface type dynamically selectable and dynamically interchangeable from a plurality of user interface types (switch between visual styles in any convenient way such as by selection a radio button in dialog, by menu selection, icon selection, col 13, ln 17-21/dynamically switch between visual styles, col 2, ln 10-15/ multiple selectable visual style, col 2, ln 43-46).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Edwards and Beer because Beer's dynamically switch

between visual styles would improve the efficiency of Edwards's system by reducing security risks when loading applications from servers.

Edwards and Beer do not teach wherein the selected user interface type comprises at least one member of a group consisting of a graphical user interface type, a web enabled interface, a handheld device interface, a voice simulation interface, a voice response interface, a voice activated interface, a voice recognition interface, and an audio interface. However, Hayner et al teaches wherein the selected user interface type comprises at least one member of a group consisting of a graphical user interface type, a web enabled interface, a handheld device interface, a voice simulation interface, a voice response interface, a voice activated interface, a voice recognition interface, and an audio interface (The user interface is preferably a GUI (graphical user interface), but optional and more preferably is a Web browser interface. Alternatively, the user interface is any type of interface which becomes altered upon receiving user input through a user input device, para [0007], ln 9-13/ para [0029], ln 5-13).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Edwards, Beer and Hayner because Hayner's at least one member of a group consisting of a graphical user interface type, a web enabled interface, a handheld device interface, a voice simulation interface, a voice response interface, a voice activated interface, a voice recognition interface, and an audio interface would improve the efficiency of Edwards and Beer's systems providing a solution to the problem of quality assurance/quality control of interactions between a user and an agent through a web site and/or other type of network interactions.

**As to claim 3,** Edwards teaches a group comprising a control message, data (col 5, ln 44-48).

**As to claim 4,** Edwards teaches the first layer object is configured to transmit the communication to the second layer object (col 5, ln 5-9).

**As to claim 5**, Edwards teaches the second layer object is configured to transmit the communication to the first layer object (col 8, ln 27-32).

**As to claim 6,** Edwards teaches collapse the transparent layer object when the first layer object and the second layer object relay the communication (col 2, ln 55-60/col 3, ln 13-17/col 5, ln 9-19 and ln 54-67).

**As to claim 7,** Edwards teaches a plurality of transparent layer objects (a multi-layered relational database manager, col 2, ln 49-50).

**As to claim 8,** Edward teaches configured the communication comprises data (col 5, ln 48-50).

4. Claims **12 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards et al (US. 6,353,819 B1) in view of McCormack et al (US. 5,181,171), as applied to claim 1 above, in view of Rick (CA Ship Database-Management Suite For E-Commerce).

**As to claim 12,** Edwards and McCormack do not teach a plurality of databases, each database having a different database type. However, Rick teaches a plurality of databases, each database having a different database type (the oracle database… Sybase data bases, page 1, ln 22-23).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Edwards, McCormack and Rick because Rick's a plurality of databases and each database having a different database type would improve the efficiency of Edwards and McCormack's systems by providing greater availability single instance accessing a single database.

**As to claim 13**, Rick teaches a structured query language database, an Oracle database, a DB2 database, and an XML-based database (page 1, ln 22 –23).

**5.** Claims **14 and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards et al (US. 6,353,819 B1) in view of Kung (US. Patent 5,933,837) in view of Beer (US. Patent 5,793,368) and further in view of Hayner et al (System and Method for Capturing Browser Session and User Actions).

**As to claim 14**, Edwards teaches an province configured (MFM component layer 206, col 8, ln 30-32), an action province configured with logic to process an action and to generate at least one query requesting data (col 5, ln 14-17/col 8, ln 53-56), query requesting data (col 5, ln 45-48), a yoke province (RAM Codegen Executor layer 204, col 5, ln 33), identify a database with a database type to which the query corresponds (col 5, ln 42-44), initiate a connection with the database to transmit the query to the database( col 5, ln 45-48), retrieve data in response to the query( col 5, ln 47-50), transmit the data to the action province( col 8, ln 29-32), a witness province( the Io Random Controller component layer 208, col 5, ln 20-21), the witness province configured to identify the action occurring via an input/output interface ( col 5, ln 20-23), notify

with the action at least one member of a group( col 8, ln 51-53), at least one layer configured to enable communication with a surrounding layer without having to communicate via the layer( col 2, ln 55-60/col 3, ln 13-17/col 5, ln 9-19 and ln 65-67).

Edwards do not explicit teach dynamically identify a database with a database type to which the query corresponds. However, Kung teaches dynamically identify a database with a database type to which the query corresponds (determines which of subscribe databases requires translations and subsequently translates the queries into appropriate formats based on the types of subscribing database models, col 3, ln 55-60/ predetermined or sample query descriptions that can be used by query manager to construct queries appropriate for each of subscribing databases 122, 124, 126(fig.1), col 4, ln 64-67/ col 5, ln 1-5).

I would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Edwards and Kung because Kung's dynamically identify a database with a database type to which the query corresponds would improve the efficiency of Edward's system by providing a system that correctly propagates the update in the primary data only to subscribing databases that need to access.

Edwards and Kung do not teach a selected user interface type dynamically selectable and dynamically interchangeable from a plurality of user interface types. However, Beer teaches a selected user interface type dynamically selectable and dynamically interchangeable from a plurality of user interface types (dynamically switch between visual styles, col 2, ln 10-15/ multiple selectable visual styles, col 2, ln 43-46).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Edwards, Kung and Beer because Beer's dynamically

switch between visual styles would improve the efficiency of Edwards and Kung's systems by reducing security risks when loading applications from servers.

Edwards, Kung and Beer do not teach wherein the selected user interface type comprises at least one member of a group consisting of a graphical user interface type, a web enabled interface, a handheld device interface, a voice simulation interface, a voice response interface, a voice activated interface, a voice recognition interface, and an audio interface. However, Hayner et al teaches wherein the selected user interface type comprises at least one member of a group consisting of a graphical user interface type, a web enabled interface, a handheld device interface, a voice simulation interface, a voice response interface, a voice activated interface, a voice recognition interface, and an audio interface (The user interface is preferably a GUI (graphical user interface), but optional and more preferably is a Web browser interface. Alternatively, the user interface is any type of interface which becomes altered upon receiving user input through a user input device, para [0007], ln 9-13/ para [0029], ln 5-13).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Edwards, Kung, Beer and Hayner because Hayner's at least one member of a group consisting of a graphical user interface type, a web enabled interface, a handheld device interface, a voice simulation interface, a voice response interface, a voice activated interface, a voice recognition interface, and an audio interface would improve the efficiency of Edwards, Kung and Beer's systems providing a solution to the problem of quality assurance/quality control of interactions between a user and an agent through a web site and/or other type of network interactions.

**As to claim 18,** Edwards teaches the witness yoke province comprises a nomadic layer object configured to make a connection to the database and to pass the query to the database (col 5, ln 20-25/col 8, ln 44-46).

**Allowable Subject Matter**

6. Claims 16, 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims **19-24** are allowed.

**Response to the argument**:

8. Applicant amendment filed on 9/03/04 has been considered but they are not persuasive:

Applicant argued in substance that :

(1) " McCormack does not appear to discuss not having to communicate via more than one hidden layers ", " McCormack refers to a "hidden layer" as a layer that is not an input or ouput layer".

(2) " McCormack does not specifically illustrate bypassing two hidden layers between the input layer 42 and the output layer 46 " .

(3) " the teaching of Edwards and McCormack are uncombinable".

(4) " Beer only discusses the GUI, which is a single interface type, unlike the plurality of interface types of claim 2".

9. Examiner respectfully disagreed with Applicant's remarks:

As to the point (1), McCormack teaches Network 40 includes three layers of nodes 42, 44 and 46, arranged in layers. The layer of nodes 42, each receiving an input to network 40, is

referred to as the input layer; conversely, the layer of nodes 46, presenting outputs from the network 40, is referred as to the output layer. The layer of nodes 44, each receives inputs from input nodes 42, and presents an output to output nodes 46, is commonly referred to as a middle or hidden, layer. While a single hidden layer is illustrated in Fig.3, it should be noted that conventional networks might include multiple hidden layers between the layer of input nodes 42 and the layer of output nodes 46(col 7, ln 4-15).

As to the point (2), McCormack teaches links with skip hidden layer in the network (col 25, ln 46-48)/ if an output node 46 is strongly dependent upon one particular input node 42, a direct link 48 there between allows more rapid convergence to the proper weighting according to this dependence rather than going through a filter of the hidden layer of nodes 44 to arrive at the proper result, col 8, ln 48-54).

As to the point (3), Both references of Edwards and McCormack teach using a hidden layer for communication between the first layer and the second layer.

As to the point (4) switch between visual styles in any convenient way such as by selection a radio button in dialog, by menu selection, icon selection, col 13, ln 17-21/dynamically switch between visual styles, col 2, ln 10-15/ multiple selectable visual style, col 2, ln 43-46)/the virtual style setting determine how a user interce control is displey . Therefore, each virtual style will be represented for different user interface type( col 11, ln 6-9). A radio button , menu selection or icon selection are different user interfaces types and Window 95 stype and Motif stype are two different user interface stypes.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (571) 272 3767. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomson, William can be reached on (571) 272 3718. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR of Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

LeChi Truong

October 19, 2006

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100